

**Ministry of Energy and Mines**

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MEMORANDUM

**June 1998 Monthly Report
for the
Northeast-Central Region
by
Bob Lane, Regional Geologist, Prince George**

MINES AND MINE DEVELOPMENTS

Kemess. Toured site June 16th with Ken MacDonald and Kemess Mines Inc. chief geologist Mike Hibbits. The mill was processing from 20,000 to 24,000 tons per day through one mill circuit and the second circuit was beginning to coming on stream. The mine should reach full production in six to eight weeks. Metal recoveries are typically about 70% for both copper and gold. A 42 cubic yard P&H shovel and two 260 tonne haul trucks are mining ore. Waste from the pit is being removed by an L1400 loader and hauled to the tailings via four 260 tonne trucks. A 3-metre lift is being added to the dam. An estimated 6 - 7 million tonnes of ore will be mined in 1998. Concentrate is being produced, but none has left the mine site yet (stored in conc bags in the mill). Details of the concentrate haulage route are still being worked out.

Bullmoose. Visited June 11th with Tom Schroeter and Barry Ryan. Dan McNeil, Mine Geologist provided a tour of the site. Estimated production for 1998 = 2 million tonnes. Bullmoose will get a premium for any coal stockpiled at the Ridley terminal by March 31/99; however the mines stockpile area at the port is full of coal (est 400,000 tonnes) and it is waiting for boats to deliver it to Japan. In 1999 when the supply contract goes to 1.6 million tonnes from 2 million tonnes there will be significant layoffs; the mine is also reaching a point where the strip ratio has been significantly reduced and will require a smaller workforce. Current employment is about 360; an additional 12-15 are employed by Arrow Trucking. Last winters exploration program on West Fork totaled approx. 2000 metres in 54 perc. holes and cost approximately \$98,000. The future of the mine is the West Fork deposit, but it may not be economically feasible. A tentative plan would be to mine at a rate of 1.5 million tonnes for 5 years at an average strip ratio of 10:1 current mining is from several locations toward the south end of the South Fork pit where the strata (including coal seams) steepens to a maximum of 65 degrees; 6 seams are mined: A1, A2, B, C, D and E. The mine uses four 2100 P&H shovels and 14 CAT haul trucks, 11 of which are 789B model and have a capacity of 172 tonnes. Very successful reclamation--several prominent dumps have been recontoured, layered with mud (top soil) and seeded.

Quintette. Visited on June 10 with Tom Schroeter and Barry Ryan; Kevin Sharman, Mine Geologist, provided a tour of the site. Estimated production for 1998 = 3 million tonnes. Mesa pit was mined out about 6 weeks ago. Shikano pit has about 6-8 weeks worth of reserves before it is completely mined out. Production from Babcock will replace production from Shikano...in time; mining is currently well behind schedule at Babcock. Prefeasibility on Window pit (zone): will be examined (hopefully) this year by way of a 25-hole percussion and large diameter coring program and bulk sampling (\$500,000 program if approved). Window contains a resource of approx. 10 million tonnes and would require prestripping. U/G potential of Babcock will likely be closely reviewed; there are an estimated 50 million product tonnes in Babcock U/G. Babcock consists of 5 main seams that are flatter than elsewhere on the property. Herman Mountain also has some potential for future production: 8 million tonnes at a strip ratio of 8.5:1.



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HIGHLIGHTS

Kemess. A road block was constructed on the ORAR by the Tsay Keh Dene band at Black Pine. Royal Oak is attempting to have the blockade removed by court injunction (Note: the blockade was removed voluntarily by the Tsay Keh Dene on July 4 and discussions between representatives from Royal Oak, First Nations and the provincial government will hopefully resolve the outstanding issues).

Presented Exploration Overview talk in Tumbler Ridge, on June 4, as part of the informal Coal Symposium, organized each year by Barry Ryan (GSB-Victoria). Approximately 30 locals took in the talks which focused on coal fluidity (Ryan), Jade (Lefebure), Arctic coal (Rick Richardson), and updates of Quintette (Helene Lukey) and Bullmoose (Dan McNeil) operations.

MINES and MINE DEVELOPMENTS

QR. The Main pit has been shut down temporarily while engineering studies are completed on an area of possible failure in the ramp area. In-pit reserves contain an estimated 6,000 to 8,000 ounces of gold. Stockpiles contain approximately 2 months of millfeed. Underground development on the Midwest zone will enable mining to proceed, from the 985 level, within weeks. Development of the Southlobe pit (West zone) has not yet begun. Exploration and underground development is ongoing (see below).

Quintette. Toured the Shikano pit and Babcock (Little Windy-phase 1) developments with Ryan and Lefebure on June 5. La Prairie Contracting (Tumbler Ridge) will mine and stockpile approximately 500,000 tonnes of met. coal while they are constructing about half of the 9.5 km mine access road to the Babcock site. At the time of our visit about 150,000 tonnes of coal had already been stockpiled. The project is scheduled to be in full operation by 1998 with projected annual production of 2 million tonnes. Reserves will be mined out by 2003. Quintette's total planned clean coal production for 1997 is 4.4 million tonnes.

Bullmoose. An exploration/geotech drilling program, consisting of 50-60 rotary holes each averaging approximately 80 metres in length, is planned to get underway in September on the West Fork deposit.

Hannandor. The Hannandor placer gold property, owned by Gallery Resources, is located 22 km east of Quesnel and consists of 12 placer leases that cover a portion of Lightning Creek, as well as benches north and south of the current channel. Project consultant Terry Garrow provided a tour of operations on June 19. Production in 1997 began on May 10. Pay gravels are trucked from the North Moustique pit several kilometres to the plant site in the old Hannandor pit. The 150